38. (New) The polypeptide of claim 37, having at least one of the following properties:

a) the polypeptide comprises at least 10 consecutive amino acid residues contained in SEQ ID NOs: 147-149, 151, or 153-154;

b) the polypeptide comprises at least 15 consecutive amino acids that are at least 80% identical to a sequence contained in SEQ ID NOS: 147-149, 151, or 153-154.

39. (New) The polypeptide of claim 37, which when incubated with COS-1 cells expressing TNF receptor, promotes enzymatic cleavage and release of the receptor.

40. (New) The polypeptide of claim 37, which is immunogenic for an antibody specific for a modulator of TRRE activity.

41. (New) The polypeptide of claim 37, which either:

a) lacks a membrane spanning sequence; or

b) is produced by a process comprising recombinant expression in a host cell followed by purification of the polypeptide from medium in which the cell is cultured.

42. (New) A method of producing the polypeptide according to any of claim 37, comprising:

a) culturing host cells genetically altered to express a polynucleotide comprising an encoding sequence for the polypeptide; and subsequently

b) purifying the polypeptide from the cells.

43. (New) The method of claim 42, comprising harvesting culture medium, and purifying the polypeptide from the culture medium by a process comprising affinity chromatography.

44. (New) An isolated antibody specific for a polypeptide according to claim 37.

45. (New) A method for producing the antibody according to claim 44, comprising immunizing a mammal or contacting an immunocompetent cell or particle with a polypeptide according to claim 37.

46. (New) An assay method for determining altered TRRE activity in a cell or tissue sample, comprising:

a) contacting the sample with a polynucleotide under conditions that permit the polynucleotide to hybridize specifically with nucleic acid that encodes a modulator of TRRE activity, if present in the sample; and

b) determining polynucleotide that has hybridized as a result, as a measure of altered TRRE activity in the sample;

wherein the polynucleotide has at least one of the following properties:

i) the polynucleotide comprises a nucleotide sequence contained in SEQ ID NOs:1-10;

ii) the polynucleotide comprises a nucleotide sequence of at least 30 consecutive nucleotides contained in SEQ ID NOs:1-10;

iii) the polynucleotide comprises a nucleotide sequence of at least 50 consecutive nucleotides at least 90% identical to a sequence contained in SEQ ID NOs:1-10; or

iv) the polynucleotide is capable of hybridizing specifically to a nucleotide sequence contained in SEQ ID NOs:1-10 under stringent conditions.

47. (New) The assay method of claim 46, wherein the polynucleotide comprises a nucleotide sequence of at least 30 consecutive nucleotides contained in SEQ ID NOs:1-10.

48. (New) An assay method for determining altered expression of a modulator of TRRE activity in a cell or tissue sample, comprising:

a) contacting the sample with the antibody of claim 44 under conditions that permit the antibody to bind the modulator if present in the sample, thereby forming an antibody-antigen complex; and

b) determining any complex formed as a measure of altered expression of the modulator.

49. (New) A method for assessing a disease condition associated with altered TRRE activity in a subject, comprising determining altered expression of a TRRE modulator according to claim 46, and then correlating the extent of alteration with the disease condition.

50. (New) A method for decreasing signal transduction from a cytokine into a cell, comprising contacting the cell with a polypeptide having at least one of the following properties:

a) the polypeptide comprises at least 10 consecutive amino acid residues encoded in any of SEQ ID NOs:1-10; or

b) the polypeptide comprises at least 15 consecutive amino acids that are at least 80% identical to a sequence encoded in any of SEQ ID NOs:1-10.

51. (New) A method for increasing signal transduction from a cytokine into a cell, comprising contacting the cell with an antibody according to claim 44.

52. (New) The method of claim 50, wherein the cytokine is TNF.

53. (New) A method of screening polynucleotides for an ability to modulate TRRE activity, comprising:

a) providing cells that express both TRRE and the TNF-receptor;

b) genetically altering the cells with the polynucleotides to be screened;

c) cloning the cells genetically altered; and

d) identifying clones that enzymatically release the receptor at an altered rate.

54. (New) A pharmaceutical composition comprising a polynucleotide in a pharmaceutically compatible excipient, wherein the polynucleotide has at least one of the following properties:

a) the polynucleotide comprises a nucleotide sequence contained in SEQ ID NOs:1-10;

b) the polynucleotide comprises a nucleotide sequence of at least 30 consecutive nucleotides contained in SEQ ID NOs:1-10;

c) the polynucleotide comprises a nucleotide sequence of at least 50 consecutive nucleotides at

least 90% identical to a sequence contained in SEQ ID NOs:1-10;

d) the polynucleotide is capable of hybridizing specifically to a nucleotide sequence contained in SEQ ID NOs:1-10 under stringent conditions; or

e) the polynucleotide comprises a nucleotide sequence that encodes at least 10 consecutive amino acids encoded in SEQ ID NOs:1-10.

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55. (New) A pharmaceutical composition comprising a polypeptide in a pharmaceutically compatible excipient, wherein the polypeptide has at least one of the following properties:

a) the polypeptide comprises at least 10 consecutive amino acid residues encoded in any of SEQ ID NOs:1-10; or

b) the polypeptide comprises at least 15 consecutive amino acids that are at least 80% identical to a sequence encoded in any of SEQ ID NOs:1-10.

56. (New) A pharmaceutical composition comprising an antibody according to claim 44 in a pharmaceutically compatible excipient.--

REMARKS

Claims 37-56 are pending after entry of the amendments above.

Claims 1-36 are canceled without prejudice to renewal, without intent to abandon any subject matter therein, and without acquiescing to any rejection which may have been applied. Applicants expressly reserve the right to pursue the subject matter of the canceled claims in a continuing application.

Support for new claims 37-43 is found in, for example, claims 7-14 as originally filed.

Support for new claims 44-45 is found in, for example, claims 16 and 17as originally filed.

Support for new claims 46-47 is found in, for example, claims 18, 3, 4, and 5 as originally filed.

Support for new claim 48 is found in, for example, claim 19 as originally filed.

Support for new claim 49 is found in, for example, claim 20 as originally filed.

Support for new claim 50 is found in, for example, claims 21, 9, and 10 as originally filed.

Support for new claims 51, 52 and 53 is found in, for example, claims 22-24 as originally filed.